

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau(43) International Publication Date  
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number  
WO 2004/057314 A3(51) International Patent Classification<sup>7</sup>: G01N 21/21(21) International Application Number:  
PCT/CA2003/001996(22) International Filing Date:  
19 December 2003 (19.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/434,780 20 December 2002 (20.12.2002) US(71) Applicant (for all designated States except US):  
FISO TECHNOLOGIES INC. [CA/CA]; 500, avenue Saint-Jean-Baptiste, Bureau 195, Québec, Québec G1N 4N6 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PINET, Eric [CA/CA]; 1535, chemin Jean-Gauvin, Val-Bélair, Québec G3K 1X2 (CA). DUPLAIN, Gaétan [CA/CA]; 196, avenue de la Falaise, Beauport, Québec G1E 3H6 (CA).

(74) Agent: ROBIC; Leger Robic Richard, CDP Capital Center, 1001, Victoria Square, Bloc E - 8th Floor, Montreal, Quebec H2Z 2B7 (CA).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

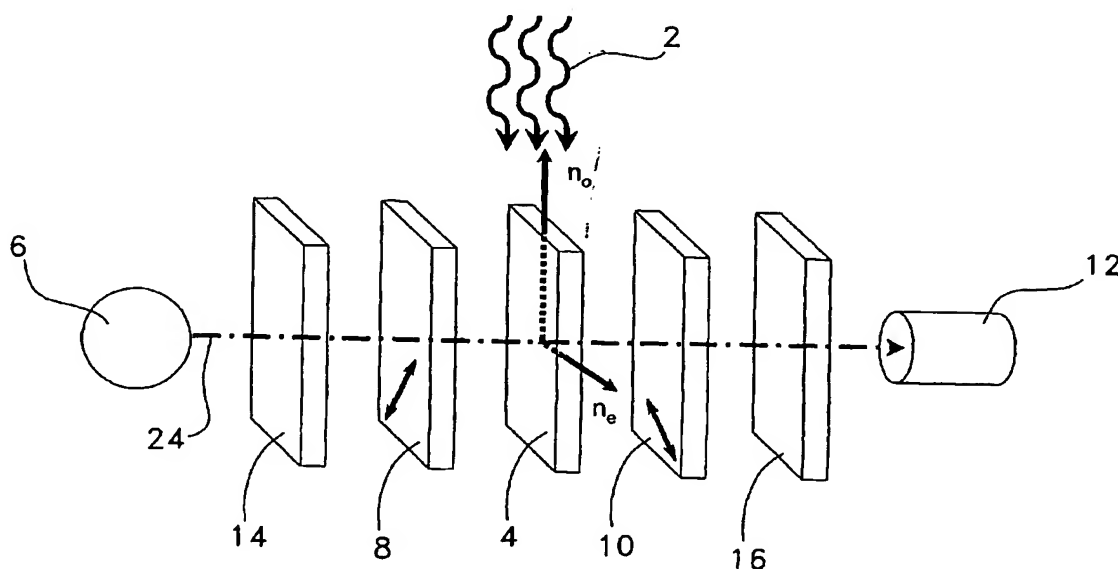
## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
4 November 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLARISATION INTERFEROMETRIC METHOD AND SENSOR FOR DETECTING A CHEMICAL SUBSTANCE



(57) Abstract: A method and a sensor for detecting a chemical substance in an analyte. An anisotropic material is subjected to the analyte. Light is passed through the anisotropic material and collected. A change of an optical anisotropy of the collected light is detected, the change being indicative of the chemical substance in the analyte.